



November 17, 2014

1516 Ninth Street
Hearing Room A – First Floor
Sacramento, California 95814

11 a.m.

(Wheelchair Accessible)

THE COMMISSION WILL CONSIDER AND MAY TAKE ACTION ON THE FOLLOWING ITEMS:

1. **CONSENT CALENDAR.** (Items on the Consent Calendar will be taken up and voted on as a group. A commissioner may request that an item be moved and discussed later in the meeting.)
 - a. **CLEAN ENERGY STATES ALLIANCE, INC.** Proposed resolution approving Agreement 400-14-002 for \$50,000 with the Clean Energy States Alliance, Inc. (CESA) to renew the Energy Commission's membership for one year, from July 1, 2014 to June 30, 2015. CESA is a unique multistate collaboration of public clean energy funds and state agencies working together to develop and promote clean energy and low-carbon technologies and expand the market for these technologies. (ERPA funding) Contact: Brian McCollough.
 - b. **BEVILACQUA-KNIGHT, INC. (BKI).** Proposed resolution approving Agreement 600-14-005 with Bevilacqua-Knight, Inc. for a one year membership in the California Fuel Cell Partnership (CaFCP) in the amount of \$87,800. BKI facilitates and coordinates the efforts of the CaFCP, including operational, financial, and project management. As a member, the Energy Commission will have a seat on the CaFCP's Steering Committee and will participate in the Working Group, Station Implementation Group, and other committees. (ARFVTP funding) Contact: Jennifer Masterson.
2. **ENERGY COMMISSION COMMITTEE APPOINTMENTS.** Possible approval of appointments to the Energy Commission's Standing Committees and Siting Case Committees. Contact: Kevin Barker. (Staff presentation: 5 minutes)
3. **CITY OF PASADENA.** Proposed resolution approving the City of Pasadena's locally adopted building energy standards to require the use of cool roof materials for new residential construction as well as additions and alterations to existing residential projects. This will result in greater energy efficiency than the 2013 Building Energy Efficiency Standards. Contact: Ingrid Neumann. (Staff presentation: 5 minutes)
4. **HANFORD ENERGY PARK EMERGENCY PEAKER PROJECT (01-EP-7C).** Proposed order granting the revocation of the 2010 Amended Final Decision for the GWF Hanford Combined-Cycle Power Project and the reinstatement and extension of the original 2001 license for the Hanford Energy Park Emergency Peaker Project. The amended project was never constructed. The project continues to operate under its

- original emergency peaker certification which requires the Energy Commission to certify that the project complies with certain criteria of permanence, site control and conditions of certification. Contact: Dale Rundquist. (Staff presentation: 15 minutes)
5. **HENRIETTA PEAKER POWER PLANT PROJECT (01-AFC-18C).** Proposed order granting the revocation of the 2010 Amended Final Decision for the GWF Henrietta Combined-Cycle Power Plant (GWF Henrietta), and the reinstatement of the original 2002 certification. The amended project was never constructed, and the project continues to operate under its original simple-cycle certification. Contact: Dale Rundquist. (Staff presentation: 10 minutes)
 6. **ABENGOA MOJAVE SOLAR PROJECT (09-AFC-5C).** Proposed order granting the petition to amend the Energy Commission decision. The petition requests to amend Air Quality Condition of Certification AQ-25 to accommodate a portable handheld meter that will be used to obtain total dissolved solids values of the cooling tower blow-down water. Energy Commission Air Quality staff is also requesting minor wording changes to Air Quality Conditions of Certification AQ-26 and AQ-28 to incorporate the wording used by the Mojave Desert Air Quality Management District into these conditions. The project would continue to comply with applicable laws, ordinances, regulations, and standards. Contact: Dale Rundquist. (Staff presentation: 10 minutes)
 7. **CALPINE KING CITY COGENERATION (85-AFC-5C).** Proposed order approving the petition to amend the California Energy Commission Decision. Elimination of one condition would allow performance testing/ model validation for the combustion turbine, lifting a limit of one startup and shutdown of the turbine per day. The addition of two new conditions would exempt the gas turbines and auxiliary boilers from short-term emission limits during limited periods for tuning and performance testing. Additional administrative modifications to various conditions, or in some cases changes to or deletions of conditions that are obsolete or incorrectly numbered, are also necessary. The proposed changes would not result in an exceedance of ambient air quality standards, and the total impact, using current background concentrations, would remain below current ambient air quality standards. The revisions will not result in any adverse environmental impacts or risks to public health. Contact: Eric Veerkamp. (Staff presentation: 10 minutes)
 8. **MARSH LANDING GENERATING STATION PROJECT (08-AFC-03C).** Proposed order approving a Petition to Amend the California Energy Commission Decision to install a new diesel backup generator, a diesel fire pump engine and 150 feet of fire loop piping by adding five and amending one Air Quality Conditions of Certification and amending one Biological Resources Condition of Certification. Contact: Camille Remy Obad. (Staff presentation: 10 minutes)
 9. **ORDER INSTITUTING RULEMAKING.** Proposed order instituting a rulemaking to complete updates to the Commission's power plant siting and general process regulations within Title 20 of the California Code of Regulations. The updates address issues raised by staff and stakeholders as part of the lessons learned proceeding, docket 10-SIT-OII-1 and docket 14-OII-01. Contact: Jared Babula. (Staff presentation: 5 minutes)
 10. **MECHANICAL ACCEPTANCE TEST TECHNICIAN CERTIFICATION PROVIDER PROGRAM.** Proposed resolution approving the maximum length of time, six months, of a one-time extension of the interim-approval period for Nonresidential Mechanical Acceptance Test Technician Certification Providers from December 31, 2014 to June 30, 2015. Contact: Joe Loyer. (Staff presentation: 10 minutes)

11. CALIFORNIA ADVANCED LIGHTING CONTROLS TRAINING PROGRAM. Possible approval of the California Advanced Lighting Controls Training Program, (CALCTP), as a Lighting Acceptance Test Technician Certification Provider (ATTCP). This will allow CALCTP to train and certify field technicians and employers on the Building Energy Efficiency Standards lighting control acceptance tests. Contact: Joan Walter. (Staff presentation: 10 minutes)
12. NATIONAL LIGHTING CONTRACTORS ASSOCIATION OF AMERICA. Possible approval of the National Lighting Contractors Association of America, (NLCAA), as a Lighting ATTCP. This will allow NLCAA to train and certify field technicians and Employers on the Building Energy Efficiency Standards lighting control acceptance tests. Contact: Joan Walter. (Staff presentation: 10 minutes)
13. APPLIANCE EFFICIENCY ENFORCEMENT RULEMAKING. Proposed resolution adopting regulations establishing an administrative enforcement process for the Appliance Efficiency Regulations set forth in Title 20, section 1601 et seq. of the California Code of Regulations. The proposed action is taken under the authority of sections 25213 and 25402.11 of the Public Resources Code (PRC), and would establish the administrative enforcement process authorized by PRC section 25402.11. Contact: John Nuffer. (Staff presentation: 5 minutes)
14. RENEWABLES PORTFOLIO STANDARD PROGRAM – IMPLEMENTATION OF ASSEMBLY BILL 1478. Proposed resolution implementing Assembly Bill 1478 to amend and clarify the eligibility requirements of a hydroelectric generation unit with a nameplate capacity not exceeding 40 megawatts that is operated as part of a water supply or conveyance system for the Renewables Portfolio Standard Program. Contact: Lynette Green. (Staff presentation: 5 minutes)
15. SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. Proposed resolution approving Agreement 600-14-003 with South Coast Air Quality Management District for a \$1,400,000 contract to install overhead catenary line infrastructure to demonstrate zero-emission drayage truck operations along the I-710 corridor. (ARFVTP funding) Contact: Sam Lerman. (Staff presentation: 5 minutes)
16. CALSTART, INC. Proposed resolution approving Agreement ARV-14-025 with CalSTART, Inc. for a \$900,000 grant to develop and demonstrate an innovative, zero-emission battery dominant fuel cell hybrid system architecture for a 40-foot heavy-duty transit bus that will reduce the size of the fuel cell power plant, with a goal of reducing the price by 70 percent. Reducing acquisition costs will make future purchases comparable to today's hybrid costs and make fuel cell hybrid buses more commercially viable for transit authorities. (ARFVTP funding) Contact: David Nichols. (Staff presentation: 5 minutes)
17. PACIFIC ETHANOL DEVELOPMENT, LLC. Proposed resolution approving Agreement ARV-14-026 with Pacific Ethanol Development, LLC for a \$3,000,000 grant to develop and use sorghum feedstock that will lead to the production of low carbon transportation fuel. (ARFVTP funding) Contact: Larry Rillera. (Staff presentation: 5 minutes)
18. CITY OF SAN MATEO. Proposed resolution approving Agreement ARV-14-028 with the City of San Mateo for a \$2,450,000 grant to produce low carbon biomethane from the unused digester gas that is generated at the City of San Mateo's wastewater treatment plant. The biomethane will be used to fuel fleet vehicles. (ARFVTP funding)

Contact: Andrew Hom. (Staff presentation: 5 minutes)

19. **CAMPBELL UNION SCHOOL DISTRICT LOANS.** (ECAA-ED Program funding)
Contact: Jim Holland (Staff presentation: 10 minutes)

- a. Rosemary Elementary. Proposed resolution approving Agreement 006-14-ECG with Campbell Union School District for a \$794,812 loan at zero percent interest for energy efficiency measures and photovoltaic installation at the Rosemary Elementary School, a charter school. Based on the loan amount, the simple payback is approximately 17.7 years. The projects will save approximately \$44,922 annually.
- b. Rolling Hills Middle School. Proposed resolution approving Agreement 007-14-ECG with Campbell Union School District for a \$692,584 loan at zero percent interest for energy efficiency measures and photovoltaic installation at the Rolling Hills Middle School, a charter school. Based on the loan amount, the simple payback is approximately 16 years. The projects will save approximately \$43,161 annually.
- c. Marshall Lane Elementary. Proposed resolution approving Agreement 008-14-ECG with Campbell Union School District for a \$478,754 loan at zero percent interest for energy efficiency measures and photovoltaic installation at the Marshall Lane Elementary School, a charter school. Based on the loan amount, the simple payback is approximately 15.8 years. The project will save approximately \$30,266 annually.
- d. Lynhaven Elementary. Proposed resolution approving Agreement 009-14-ECG with Campbell Union School District for a \$65,887 loan at zero percent interest for energy efficiency measures at the Lynhaven Elementary School, a charter school. Based on the loan amount, the simple payback is approximately 11.5 years. The project will save approximately \$5,714 annually.
- e. Forest Hill Elementary. Proposed resolution approving Agreement 010-14-ECG with Campbell Union School District for a \$534,346 loan at zero percent interest for energy efficiency measures and photovoltaic installation at the Forest Hill Elementary School, a charter school. Based on the loan amount, the simple payback is approximately 17 years. The project will save approximately \$31,362 annually.
- f. Castlemont Elementary. Proposed resolution approving Agreement 013-14-ECG with Campbell Union School District for a \$81,218 loan at zero percent interest for energy efficiency measures at the Castlemont Elementary School, a charter school. Based on the loan amount, the simple payback is approximately 11.2 years. The project will save approximately \$7,250 annually.
- g. Blackford Elementary. Proposed resolution approving Agreement 014-14-ECG with Campbell Union School District for a \$513,000 loan at zero percent interest for photovoltaic installation at the Blackford Elementary School, a charter school. Based on the loan amount, the simple payback is approximately 16 years. The project will save approximately \$31,838 annually.
- h. Sherman Oaks Elementary. Proposed resolution approving Agreement 015-14-ECG with Campbell Union School District for a \$1,084,933 loan at zero percent interest for energy efficiency measures and photovoltaic installation at the Sherman Oaks Elementary School, a charter school. Based on the loan amount,

the simple payback is approximately 17.3 years. The projects will save approximately \$62,729 annually.

- i. Monroe Middle School. Proposed resolution approving Agreement 016-14-ECG with Campbell Union School District for a \$1,078,750 loan at zero percent interest for energy efficiency measures and photovoltaic installation at the Monroe Middle School, a charter school. Based on the loan amount, the simple payback is approximately 13.6 years. The projects will save approximately \$79,319 annually.
 - j. Capri Elementary and Village School. Proposed resolution approving Agreement 017-14-ECG with Campbell Union School District for a \$796,007 loan at zero percent interest for energy efficiency measures and photovoltaic installation at Capri Elementary School and Village School, both charter schools on the same site. Based on the loan amount, the simple payback is approximately 12.7 years. The project will save approximately \$62,512 annually.
 - k. Campbell MS and Corporate Yard. Proposed resolution approving Agreement 018-14-ECG with Campbell Union School District for a \$1,378,638 loan at zero percent interest for energy efficiency measures and photovoltaic installation at the Campbell Middle School and the school district corporation yard. Based on the loan amount, the simple payback is approximately 16.4 years. The project will save approximately \$84,287 annually.
20. NEWPORT MESA UNIFIED SCHOOL DISTRICT. Proposed resolution approving Agreement 011-14-ECG with Newport Mesa Unified School District for a \$3,000,000 loan at zero percent interest for renewable energy measures at the school district's facilities. Based on the loan amount and California Solar Initiative incentives, the simple payback is approximately 6 years. The projects will save approximately \$461,458 annually. (ECAA-Ed Program funding)
Contact: Jim Holland. (Staff presentation: 5 minutes)
21. PATTERSON JOINT UNIFIED SCHOOL DISTRICT. Proposed resolution approving Agreement 012-14-ECG with Patterson Joint Unified School District for a \$3,000,000 loan at zero percent interest for renewable energy measures at two school district sites. The project at each site will be the installation of solar photovoltaic panels and related equipment. The project is estimated to save the district 1,151,000 kWh per year, resulting in annual energy cost savings of \$166,918. Based on the loan amount, the simple payback is approximately 17.9 years. (ECAA-Ed Program funding)
Contact: Barry McLeod. (Staff presentation: 5 minutes)
22. TRUSTEES OF THE CALIFORNIA STATE UNIVERSITY. Proposed resolution approving the five highest ranking grant applications totaling \$584,311 from the Public Interest Energy Research (PIER) program's Energy Innovations Small Grant Solicitation 14-02 Natural Gas and Transportation Natural Gas. These grants were competitively selected and are capped at \$150,000 each. (PIER natural gas funding)
Contact: Raquel Kravitz. (Staff presentation: 10 minutes)
- a. Natural Gas (14-02G)
 - i) University of Southern California, Los Angeles, *The Building Occupant Mobile Gateway*, Konis, Kyle, \$149,400. This project will develop and evaluate the feasibility of using smartphone software to provide detailed occupant feedback to building management personnel. The goal is to use the

occupant feedback from embedded sensors to achieve space heating and ventilation energy reduction goals while maintaining occupant comfort. If successful, this technology has the potential to achieve 30 percent or greater annual natural gas reduction in California commercial buildings through identifying and helping to minimize unnecessary heating and ventilation and preventing scheduling errors.

- ii) University of California, Berkeley, *Maximizing Efficiency of Natural Gas Engines Through Argon Power Cycle*, \$135,000. This project will determine the feasibility of applying the highly efficient Argon Power Cycle to natural gas internal combustion engines for energy generation and storage. The goal is to demonstrate high efficiency and low emissions of an argon/methane cycle compared to a standard air methane cycle. If successful, this technology has the potential to increase efficiency by 30-35 percent, reduce natural gas consumption in California, and also reduce the CO₂ emissions from power generation.
- iii) Policy Consultants LLC, Claremont, CA, *Multi-Family Residential Natural Gas Monitoring and Analysis Software (MFR-MAS)*, Nelson, Hal, \$74,951. This project will develop spatial analytics software that uses Geographic Information Systems that aggregate multi-family residential building data and natural gas meter data. The goal is to merge and analyze existing databases relevant to multi-family residential buildings and provide recommendations on applicable natural gas energy efficiency measures for each building. If successful, this technology has the potential to help utilities identify buildings with high gas use.

b. Transportation Natural Gas (14-02TNG)

- i) Cliff Edge Consulting, LLC, Sylmar, CA, *Exhaust Gas Heat Exchanger Model for Mobile ICEs*, Stewart, John, \$74,960. This project will develop an exhaust gas heat exchanger for natural gas engines used in mobile applications, such as heavy-duty trucks and locomotives. Recovered heat would be used to increase the available power of the vehicle while reducing emissions. If successful, this technology has the potential to save 3,334 gallons per year per truck.
- ii) McMem, Diamond Bar, CA, *Low Cost High Performance Natural Gas Vehicle*, Wong, Jim, \$150,000. This project will demonstrate the feasibility of using a patent-pending expander-compressor concept to increase natural gas vehicle engine performance at a much lower incremental cost. This project targets full-size pickup trucks and cars. If successful, this technology has the potential to save 50 percent in fuel costs in California compared to gasoline or diesel.

23. **Minutes:** Possible approval of Business Meeting Minutes.

- a. October 7, 2014, Minutes
- b. October 29, 2014, Minutes

24. **Lead Commissioner or Presiding Member Reports.** A Lead Commissioner on a policy matter may report to the Commission on the matter and discussion may follow. A Presiding Member on a delegated committee may report to the Commission on the matter and discussion may follow.

25. **Chief Counsel's Report:** The Energy Commission may adjourn to closed session with its legal counsel [Government Code Section 11126(e)] to discuss any of the following matters to which the Energy Commission is a party:
- a. *In the Matter of U.S. Department of Energy (High Level Waste Repository)*, (Atomic Safety Licensing Board, CAB-04, 63-001-HLW).
 - b. *Asphalt Roofing Manufacturers Association v. Energy Commission* (Third District Court of Appeal # C076990).
 - c. *PECG v. Brown* (Alameda County Superior Court # RG10494800 [Furlough Litigation].)
 - d. *Energy Commission v. SoloPower, Inc. and SPower, LLC*. (Sacramento County Superior Court # 34-2013-00154569)
 - e. *Laborers' International Union of North America, Local #1184 v. Energy Commission (Blythe Solar Energy Center)*, (Supreme Court # S220286).
 - f. *Communities for a Better Environment and Center for Biological Diversity v. Energy Commission* (Court of Appeal, First Appellate District, # A141299).
 - g. *Helping Hand Tools and Rob Simpson v. Energy Commission* (Sacramento County Superior Court # 34-2014-80001904 [Quail Brush].)

The Energy Commission may also discuss any judicial or administrative proceeding that was formally initiated after this agenda was published; or determine whether facts and circumstances exist that warrant the initiation of litigation; or that constitute a significant exposure to litigation against the Commission.

26. **Executive Director's Report.**

27. **Public Adviser's Report.**

28. **Public Comment:** People may speak up to three minutes on any matter concerning the Energy Commission, with the exception of items appearing elsewhere on this agenda or items related to pending adjudicative (certification or enforcement) proceedings.

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Adjournment of Hearings and Meetings: Depending upon time available and the orderly management of proceedings, the Commission may order adjournment (recess or postponement) of any noticed hearing or meeting, to be continued to the next day, another specific date or time, or to the next business meeting, as appropriate. Any such adjournment will be noticed at the time the order of adjournment is made (Government Code §§11128.5, 11129).